We compared black African men with black Caribbean men and found that Caribbean men were less likely to be married (odds ratio (OR) = 0.03) and to have non-regular partners (OR = 0.09) but more likely to be from blue collar (OR = 250) or white collar (OR = 25) class and to be smokers (OR = 50). Caribbeans were more likely to have daily vaginal intercourse (OR = 33), begin intercourse before 16 years of age (OR = 50), and have gonorrhoea and/or chlamydial infection (OR = 12.5).

Among Caribbean men, the risk factors for gonorrhoea were being teenaged (OR = 9.5) and commencing intercourse before 16 years of age (OR = 3.3) and for chlamydial infection having had multiple partners (OR = 10.5).

Our conclusion was that the problem should be addressed by the setting up of more ethnically acceptable clinical services before the appearance of HIV infection.

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Human papillomavirus PCR direct sequencing study of cervical precancerous lesions in Quebec children

EDITOR,—Similarly to adult pathology, human papillomavirus (HPV) infection is the most common sexually transmitted disease in adolescent girls, whose prevalence is 16% according to one US study.[1] However, little or no HPV sequencing data from paediatric specimens are available. We used our two tier polymerase chain reaction (PCR) direct sequencing (PCR-DS) approach[2] to study cervical biopsies from 44 adolescent Quebec girls (14–17 years old). They originated from various social and ethnic groups, as well as geographically distinct areas of Quebec. Written informed consent about the use of the specimens was obtained from the ethics committee of this institution. All biopsies were analysed for histological changes and presence of HPV specific DNA. Most of them (n = 36) were diagnosed as cervical intraepithelial neoplasia (CIN), seven as inflammatory changes, and one as "nil." Among the 36 CIN, 33 (92%) tested HPV positive, including all CIN-II and CIN-III samples.

Sixteen HPV types were detected, four of them in more than two samples: HPV6 (n = 8), HPV16 (n = 7), HPV11 (n = 3), and HPV31 (n = 3). In the group of cervical biopsies from adolescent girls with CIN (n = 36, age 14–17), as well as in the larger control group of adult women (n = 487, age 18–72), the percentage of high risk HPV types increased, and the low risk HPV types decreased with the progression from low grade (CIN-I) to high grade (CIN-II and III) precancerous lesions. High risk HPV represented all but one HPV type (33/34) identified in CIN-III lesions from adult women, and all HPV types from 14–17 year old girls with CIN-III (fig 1).

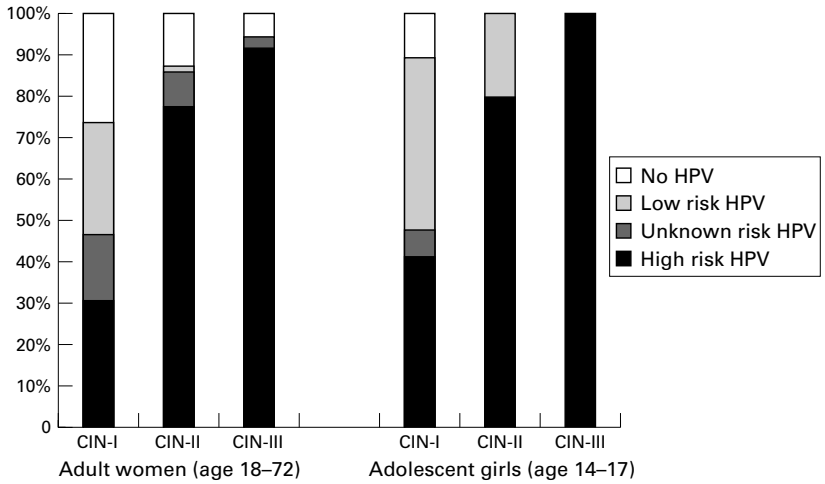

Figure 1 Relative increase of the high risk HPV types in higher grade precancerous lesions, and decrease of low risk HPV types until their full disappearance in CIN-III lesions. Data similar for both age groups—children ⩽17 year old and adults 18 years and above. The two groups differ in the number of HPV negative cases and the HPV types of unknown cancer risk.

The informative value of HPV testing in CIN, hence its clinical relevance, depends on whether there is an increase of the high risk HPV types in more advanced grades of precancerous lesions. The currently available data are conflicting. Some groups reported an increased frequency of high risk HPV from CIN-I to CIN-III, at the expense of the low risk HPV types,[3] but others insisted that the high risk HPV rates in CIN-I, CIN-II, and CIN-III were similar.[4] Our results indicate that the high risk HPV types are significantly increased from less than 50% in CIN-I to almost 100% in CIN-II and III, and this is valid for the adolescent and adult patients alike (fig 1). We hypothesise that the reasons for the discrepancies in the detection rate of various HPV types in CIN-I, II, and III may be due to the fact that some groups used the method of PCR with single pair of primers, MY09/11, which may be underrepresenting the most frequent low grade HPV types, up to a complete lack of detection for HPV6 and HPV11.[5]

This study indicates that a mass prophylactic HPV vaccine should be targeted at cohorts younger than 14–17 years, because at that age some girls already develop high grade precancerous cervical lesions with possible long term integration of the viral oncogenes in the host cell genome. We believe that a PCR direct sequencing approach to HPV testing will provide treating physicians and pathologists with precise HPV typing information, and may be used in vaccine design, application, and monitoring in children and adults.

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Contributors: LLO, PB, and PS performed the histological evaluation of the samples and signed the pathological reports; JCF-F and SF studied the HPV at DNA level; WVY provided supervision and wrote the manuscript with the help of the others.

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Substantial increase in gonorrhoea among homosexual men attending an STD centre in Toulouse, France

EDITOR,—A substantial increase in cases of gonorrhoea in an STD centre in Toulouse, France, was noted between October 1999 and September 2000. It was associated both with predominant transmission in a homosexual

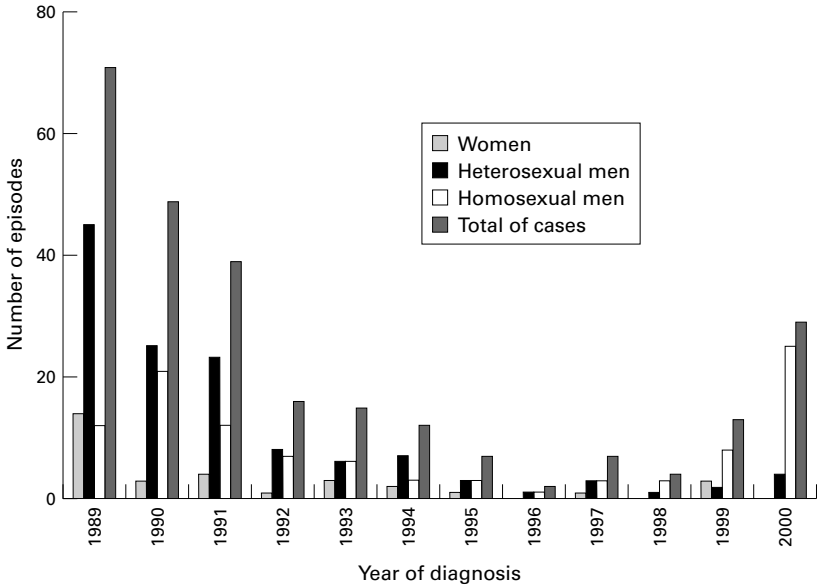

Figure 1 Cases of gonorrhoea.

population with oral sex practices and high HIV seroprevalence.

Approximately 8500 patients are seen annually at the Hospital La Grave STD centre; this number has remained stable in the last 10 years. Almost 20–25% of patients complain of STD symptoms and 5–6% of the men are defined as homosexual.

Between October 1999 and September 2000, 41 gonorrhoea episodes in 33 patients were diagnosed. Thirty (81%) cases were male; among the male population, 25 (83.3%) patients described homosexual contact. There were three cases of acute anal gonorrhoea, two of asymptomatic gonococcal pharyngitis, and 28 gonococcal typical acute ureteritis giving a total of 33 episodes.

Twenty one (84%) of the 25 homosexual men described oral sex with an occasional partner without anal intercourse. Five patients were HIV seropositive, 10 were negative at the entry, 10 refused HIV testing. There was no HIV in the heterosexual population.

Between 1989 and 1996, the total number of patients with gonorrhoea attending in La Grave STD centre fell from 71 to two cases per year; in 1999 and 2000, this number was multiplied by more than 6, to rise to 31 cases in 2000.

The number of cases in the homosexual population fell between 1989 and 1993, to stay stable at three cases a year until 1998; in 2000 the rate was multiplied by 8 (fig 1).

HIV seroprevalence in patients diagnosed with gonorrhoea remained steady at 6–11% throughout 1989–94 and declined from 7% to 0% between 1995 and 1999. In 2000, this prevalence dramatically increased to rise by 33% of total cases; all were men having sex with men.

This recent rise in total cases of gonorrhoea is notable because it concerns a very limited subgroup of homosexual men with high HIV seroprevalence and it is now well established that sexually transmitted diseases facilitate HIV transmission.[1]

A recent increase in gonococcal infections was also noted in England and Wales, the Netherlands, and France.[2 3]

Our results suggest that the predominant mode of transmission is the practice of "safer sex" in a homosexual population, participating in only oral sex practices with occasional partners. Asymptomatic pharyngeal carriage may facilitate this epidemic course.

High HIV seroprevalence in homosexual patients with gonorrhoea became a real problem during the last year of the serosurvey. All knew their serostatus, no one was found to be positive at the first visit, but 10 patients (50%) refused the HIV test.

Among seropositive men, all participated in only oral sex practices, suggesting that they thought they were having safe sex.

In New York City a longitudinal incidence study conducted in one of the STD clinics identified a history of gonorrhoea as a predictor of HIV seroconversion[4] and recent features suggest that oral sex is an independent risk factor of HIV transmission.[5]

Our study represents only a few cases in a limited cohort of patients attending an STD centre. It may not reflect the tendency in the general population but may shed light on a new epidemic mode of transmission of gonococcal disease in a core group of highly HIV positive homosexual men practising oral safe sex. More studies must be done to determine if gonococcal asymptomatic carriage in oral sex can facilitate HIV oro-genital transmission with follow up for HIV serology in seronegative patients.

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Adverse reaction to antimycobacterials administered as a combination tablet with no reaction to the same drugs in isolation

EDITOR,—A 37 year old Portuguese man presented to the genitourinary (GU) medicine department with constitutional symptoms. He had a history of injecting drug use and had been identified as positive for the human immunodeficiency virus (HIV) antibody in Portugal 5 years previously. He had not been in contact with medical services for a year. Confirmatory HIV antibody testing was positive. The CD4 lymphocyte count was 50 $\times$ 10^6/l and the viral load below the limit of detection (<40–80 copies/ml). He was admitted for further investigations including a chest *x* ray and excision biopsy of an enlarged axillary gland. All tests were initially negative, and he improved on combivir (one tablet twice daily), nevirapine (200 mg once daily increasing to twice daily after 2 weeks), and co-trimoxazole 960 mg thrice weekly. However, the night sweats failed to fully abate and 2 months later *Mycobacterium tuberculosis*, sensitive to all four first line antimycobacterial agents, was cultured from the axillary lymph node biopsy. He was therefore commenced on "Rifitah" (combination tablet of rifampicin, isoniazid, and pyrazinamide) five tablets daily and ethambutol (after visual acuity testing) 800 mg daily. Nevirapine dosage was increased accordingly. On this treatment his condition improved and he became asymptomatic.

After 2 months antimycobacterial therapy was simplified to "Rifinah 300" a combination tablet of rifampicin and isoniazid. Other medications were continued unchanged. Four days later he developed a widespread macular, erythematous, and intensely pruritic rash. This resolved within 4 days of stopping Rifinah. Rifampicin 600 mg once daily and isoniazid 300 mg once daily were sequentially reintroduced uneventfully.

The sequence of events indicates that the patient suffered an adverse drug reaction (ADR) to a constituent in the Rifinah tablets not present in the Rifitah, rifampicin, or isoniazid tablets. The manufacturers of Rifinah were consulted and to our knowledge such a reaction has not been described before. The Committee on Safety of Medicines was informed via the grey card system.

Co-infection with HIV and *Mycobacterium tuberculosis* is a problem increasingly encountered by physicians caring for individuals with HIV. A recent study in London found that 24.8% of patients commencing antituberculous chemotherapy were also HIV antibody positive.[1] HIV positive individuals are known to be at increased risk of adverse drug reactions, particularly those with advanced immunosuppression. One study documented a frequency of adverse drug reactions of 32% in HIV positive patients receiving drug therapies.[2]

Physicians should remain alert to the possibility of ADRs and warn HIV positive patients of their increased risk, even when such a reaction would not have been anticipated, as in this case.

No conflict of interest to declare.

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